



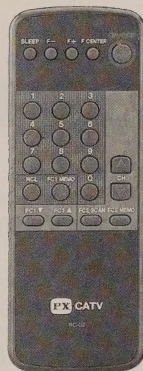
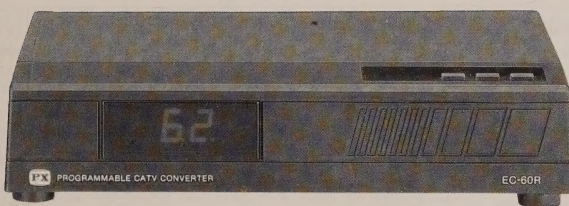
Priority in Service Quality

CABLE TV SYSTEMS

Instruction Manual

Please read carefully and keep for reference

67 Channel *Programmable* CATV Converter EC-60R



FEATURES:

- 67 channel capability.
- Wireless Infra-Red remote control.
- Microprocessor controlled PLL operation.
- Favorite channel memory.
- Favorite channel scanning.
- Built-in sleep timer.
- Last channel recall.
- Fine tune memory.
- Simple installation with any TV.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK). NO
USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The model number of this product may be bound on the back of the unit; and the serial number on the label affixed to the back of the unit.

You should note the model and serial numbers of this unit in the space provided, and retain this booklet as a permanent record of your purchase to aid in identification in the event of theft.

MODEL NUMBER _____

SERIAL NUMBER _____

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS
PRODUCT TO RAIN OR MOISTURE.

CAUTION:

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG
WITH AN EXTENSION CORD. RECEPTACLE OR OTHER OUTLET UNLESS
THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE
EXPOSURE.

INSTALLATION

1. Before connecting your converter to the television set perform the following steps.
 - (a) Turn your TV on.
 - (b) Turn your A.F.T. or A.F.C. control "off". Refer to your television instruction manual for this switch and its location. If your TV is not equipped with an A.F.T. or A.F.C. omit step.
 - (c) Set the television channel selector to the channel number which is indicated on the bottom of the converter. For example, the television set should be tuned to CCIR CH3 for CCIR CH3 converters.
 - (d) Fine tune your television to the most optimum picture. This is done by tuning your TV tuner towards a point where a herring bone pattern appears then back off the tuning slightly for best overall color, sound and picture quality.
2. Determine the best location for receiver unit bearing in mind that it should be located near the television set and a 220 volt wall outlet. The front of the converter should face your normal viewing position.
3. Insert the electrical power plug from the TV set into the outlet on the back of the converter (position 1 on Figure I), ensuring that your TV set's switch is at the "on" position.
4. Your TV set receives cable company service through a cable attached directly to the back of the TV set or attached to a transformer on the back of the TV set. Disconnect the cable from the back of the TV set (or transformer but leave the transformer attached to the TV set).
5. Now, connect this cable to the terminal marked "CABLE IN" (position ② on Figure I) on the receiver. BE CERTAIN THAT THE CENTRE CONDUCTOR IN THE CABLE ENTERS THE TERMINAL IS NOT BENT.
6. Using the coaxial cable included with your cordless receiver, connect one end to the terminal on the receiver marked "TV SET" (position ③ on Figure I), and the other end directly to the TV set (Figure I).

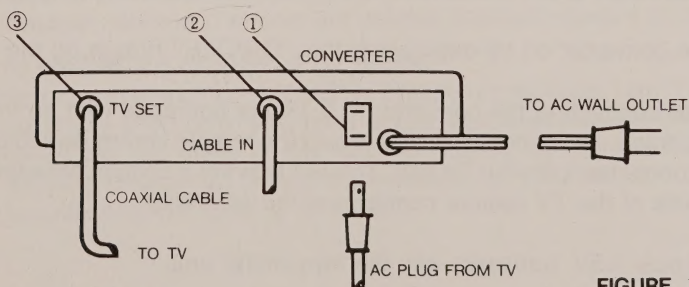


FIGURE I

7. PAY TV DECODER INSTALLATION (See Figure II)

If you have a pay TV descrambler, then it must be connected to the appropriate terminals to allow proper reception of the PAY TV programming.

- (a) Disconnect the coaxial cable from the "TV SET" terminal (position ① on Figure II).
- (b) Now, connect this cable to the "TV" or "OUTPUT" terminal of the descrambler (position ② on Figure II). BE CERTAIN THAT THE CENTRE CONDUCTOR IN THE CABLE ENTERS THE TERMINAL AND IS STRAIGHT.
- (c) Using a coaxial cable, connect the "TV SET" terminal of the converter (position ① on Figure II) to the "CONVERTER or INPUT" terminal of descrambler. (position ③ on Figure II). BE CERTAIN THAT THE CENTRE CONDUCTOR IN THE CABLE ENTERS THE TERMINAL AND IS STRAIGHT. See Figure II.

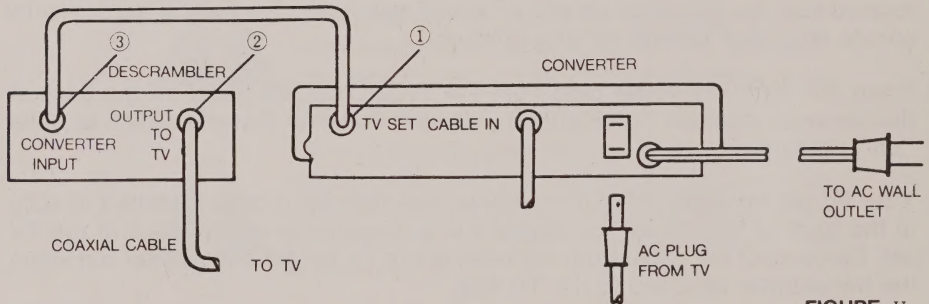


FIGURE II

8. Insert the electrical power plug into the wall outlet.

CAUTION:

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9. Turn the converter on by depressing the "ON/OFF" button on the set top.
10. If you are connecting the converter to a TV set equipped with an INFRA-RED remote control, it may be necessary to turn the remote control switch off (located on the front or back of your TV set). This will prevent a conflict between the infra-red signals of the TV remote control and the converter.
11. Insert 2pcs 1.5V batteries into the transmitter unit.

12. When the cordless TV converter is connected to SOME remote control TV sets, the TV set must be turned on at the TV set via the on/off button. The TV cannot be turned on with the converter. However, all other features of the converter can control the TV set.

OPERATING INSTRUCTIONS

REMOTE FUNCTIONS

TV SET "ON/OFF"

Press the "ON/OFF" button until the display on the screen shows a channel number. Allow the TV set to warm up, then select a channel. To turn the TV set off, depress the "ON/OFF" button.

CHANNEL SELECTION

Two numbers must be depressed for all channel selections. Any single digit channel must be preceded by a zero. When a proper channel selection is made two numbers will be illuminated on the receiver's channel indicator.

RECALL PREVIOUS CHANNEL "RCL"

The recall feature allows you to quickly switch to the previous channel viewed. This allows you to alternate between two channels.

UNLIMITED FAVORITE CHANNEL "FC1 MEMO"

The favorite channel button "FC1 MEMO" will allow you to enter or cancel any channel as a favorite channel unlimited. Favorite channel are indicated with a (.) on the receiver display. To demonstrate the entry of a favorite channel, press: 08, "FC1 MEMO" Depressing "FC1 MEMO" again will cancel the favorite channel.

"FC1 ▲" & "FC1 ▼"

Depressing the "FC1 ▲" or "FC1 ▼" button will allow you to step through your favorite channels of "FC1 MEMO" upward or downward. When the button is kept all depressed, all favorite channels are quickly scanned upward or downward.

THE MOST 10 FAVORITE CHANNEL "FC2 MEMO"

The most 10 favorite channel "FC2 MEMO" is completely separate from "FC1 MEMO" and allow a maximum of 10 channels to be stored. Favorite channels are indicated with a (.) between the two digits on the receiver display. To depress "FC2 MEMO" allows this existing channel to be stored, depressing "FC2 MEMO" again will cancel this favorite channel from "FC2 MEMO"

"FC2 SCAN"

Press to scan 10 favorite channels of "FC2 MEMO"

SCAN ALL CHANNELS "CH▲" & "CH▼"

These buttons will enable you to step through all cable channels. When a button is kept depressed, all channels are quickly scanned up or down.

FINE TUNING "F+ F-"

Ensure that the AFC (or AFT) control on your TV set has been turned off. When tuning is required, constantly depress the "F+" button until the clearest picture is obtained. If you pass the ideal picture, depress the "F-" button until it returns.

FINE TUNING "F CENTER"

Fine tuning to the center frequency, no matter what frequency the converter drifting away.

SLEEP TIMER CONTROL "SLEEP"

By depressing the "sleep" button, the display will reset to (00) showing no time stored in the sleep timer. The timer will increase by ten (10) minutes each time the "sleep" button is pressed to a maximum of 90 minutes. After you set the timer the display will automatically return to the channel numeral you are viewing about 3 seconds. Your converter will automatically turn off after the sleep time is up and reset your sleep timer back to (00).

SET TOP FUNCTIONS

TV SET ON OFF "ON/OFF"

Press the "ON/OFF" button until the display on the receiver shows a channel number. Allow the TV set to warm up, then select a channel. Turn the TV set off by depressing the "ON/OFF" button. See page 3 comment for remote TV sets.

SCAN ALL CHANNELS "CH▲" & "CH▼"

These buttons will enable you to step through all cable channels. When a button is kept depressed, all channels are quickly scanned.

NOTE: Be sure the remote controller always aims to the display of converter unit while operating.

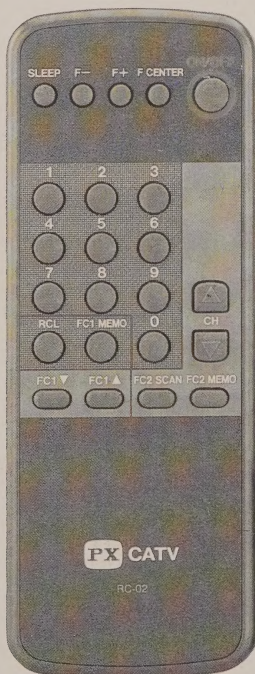
OPERATIONAL CHARACTERISTICS AND SOLUTIONS

“LOCKED” ON ONE CHANNEL-If your converter is stuck on one channel leave the converter on and disconnect the electrical line cord from the wall, leave unplugged for approximately ten seconds before reconnecting the electrical line cord.

TRANSMITTER-If you cannot change channels properly by using the transmitter but you can change channels by using the channel stepping buttons on the receiver, the battery in the transmitter may be low, You should change the battery.

TURN ON-Some TV sets possess the characteristic of selecting channel 2 when the set is turned on, regardless of the channel which you have previously selected. Therefore, when you remotely select the “ON” function with your converter, it is required that you reset the TV tuner to CCIR CH3 as required (see page 1 paragraph 1 c).

If you continue to experience difficulties, ensure that your converter has been installed according to the installation directions and that the operating instructions are being properly followed.



SPECIFICATIONS:

* TRANSMITTER

- Range : 8m (25 feet) ±15° Angle
- Power : Standard 1.5V X2 batteries

* CONVERTER

- Input Bandwidth : 47 MHz to 550 MHz
- Output Channel : CCIR CH.3
- Input/Output Impedance : 75 ohms
- Power Gain : 0 to + 8 dB
- Noise Figure : 13 dB nom
- Cross Modulation : - 60 dB max
- Fine Tuning Range : + 3 to -3 MHz
in 125 KHz steps
- Frequency Stability : ±500KHz
- Input Return Loss : 6 dB min
- Output Return Loss : 6 dB min
- Local Oscillator Leakage : - 10 dBmV max
- Power Consumption : 15 watts at 220VAC
- Dimensions : 9⁵/₁₆" X 5⁵/₁₆" X 2¹/₈"
(25CM X 15CM X 5.6CM)
- Weight : 3.2 lbs (1.5KG)

NOTE to CATV system installer:

This reminder is provided to call the CATV system in-staller's attention to guidelines for proper grounding and, in particular that the cable ground shall be connected to the groundings system of the building, as close to the point of cable entry as practical.

CATV CHANNEL CHART

Channel Indicator	Channel No	Video (MHz)	Audio (MHz)
02	2	48.25	53.75
03	3	55.25	60.75
04	4	62.25	67.75
05	5	175.25	180.75
06	6	182.25	187.75
07	7	189.25	194.75
08	8	196.25	201.75
09	9	203.25	208.75
10	10	210.25	215.75
11	11	217.25	222.75
12	12	224.25	229.75
13	S3	119.25	124.75
14	S4	126.25	131.75
15	S5	133.25	138.75
16	S6	140.25	145.75
17	S7	147.25	152.75
18	S8	154.25	159.75
19	S9	161.25	166.75
20	S10	168.25	173.75
21	S11	231.25	236.75
22	S12	238.25	243.75
23	S13	245.25	250.75
24	S14	252.25	257.75

Channel Indicator	Channel No	Video (MHz)	Audio (MHz)
25	S15	259.25	264.75
26	S16	266.25	271.75
27	S17	273.25	278.75
28	S18	280.25	285.75
29	S19	287.25	292.75
30	S20	294.25	299.75
31	S21	303.25	308.75
32	S22	311.25	316.75
33	S23	319.25	324.75
34	S24	327.25	332.75
35	S25	335.25	340.75
36	S26	343.25	348.75
37	S27	351.25	356.75
38	S28	359.25	364.75
39	S29	367.25	372.75
40	S30	375.25	380.75
41	S31	383.25	388.75
42	S32	391.25	396.75
43	S33	399.25	404.75
44	S34	407.25	412.75
45	S35	415.25	420.75
46	S36	423.25	428.75
47	S37	431.25	436.75

Channel Indicator	Channel No	Video (MHz)	Audio (MHz)
48	S38	439.25	444.75
49	S39	447.25	452.75
50	S40	455.25	460.75
51	S41	463.25	468.75
52	21	471.25	476.75
53	22	479.25	484.75
54	23	487.25	492.75
55	24	495.25	500.75
56	25	503.25	508.75
57	26	511.25	516.75
58	27	519.25	524.75
59	28	527.25	532.75
60	29	535.25	540.75
61	30	543.25	548.75
93	S93	69.25	74.75
94	S94	76.25	81.75
95	S95	83.25	88.75
96	S96	90.25	95.75
97	S97	97.25	102.75
98	S1	105.25	110.75
99	S2	112.25	117.75